

CLAIMS

1 1-32. (canceled)

1 33. (currently amended). A network device for a communication network, the network device
2 comprising:

3 (a) a database table adapted to~~[[:]]~~ ~~[(1)]~~ store one or more sets of one or more
4 parameters, each set corresponding to a different identifier; and

5 ~~(2) allow updating of a first set of one or more parameters, the first set~~
6 ~~corresponding to a first identifier, wherein the updating is based on data packets received from a~~
7 ~~first transmitter corresponding to the first identifier; and~~

8 (b) a receiver adapted to:

9 (1) receive a first data packet from ~~[[the]]~~a first transmitter, the first data packet
10 comprising a header and a payload;

11 (2) receive a first auxiliary coding corresponding to the first data packet, wherein:
12 the first auxiliary coding identifies ~~[[the]]~~a first identifier;

13 (3) recover the first identifier from the first auxiliary coding;

14 (4) retrieve ~~[[the]]~~a first set of one or more parameters from the database table
15 based on the first identifier; and

16 (5) process at least a portion of the first data packet based on the first set of one or
17 more parameters~~[[:]]~~

18 ~~(6) update the first set of one or more parameters based on the processing; and~~

19 ~~(7) provide to the database table, for storage, the updated first set of one or more~~
20 ~~parameters.~~

1 34. (previously presented) The network device of claim 33, wherein the communication network
2 is a HomePNA network.

1 35. (previously presented) The network device of claim 33, wherein:

2 the first data packet further comprises a training preamble;

3 the first auxiliary coding is inserted within the training preamble of the first data packet.

1 36. (previously presented) The network device of claim 33, wherein:
2 the first data packet further comprises a training preamble;
3 the first auxiliary coding is encoded using frequency shift keying (FSK) modulation by
4 frequency division;
5 the first auxiliary coding is encoded at a frequency different from a frequency for the first
6 data packet;
7 receipt of the first auxiliary coding overlaps in time with receipt of the training preamble
8 of the first data packet.

1 37. (previously presented) The network device of claim 33, wherein the first auxiliary coding is
2 received before the first data packet is received.

1 38. (currently amended) The network device of claim 33, further comprising a second transmitter
2 adapted to:

3 (1) generate a second auxiliary coding for transmittal with a second data packet, wherein:
4 the second auxiliary coding identifies a second identifier;
5 the second identifier identifies the second transmitter; and
6 the second auxiliary coding is different from the second data packet;
7 (2) transmit the second auxiliary coding and the second data packet to a second network
8 device.

1 39. (currently amended) The network device of claim 38, wherein:
2 the second transmitter comprises a first RF front end; and
3 the second transmitter is adapted to transmit both the second auxiliary coding and the
4 second data packet using the first RF front end.

1 40. (currently amended) The network device of claim 38, wherein:
2 the second transmitter comprises a first RF front end and a second RF front end;
3 the second transmitter is adapted to transmit the second auxiliary coding using the first
4 RF front end; and

5 the second transmitter is adapted to transmit the second data packet using the second RF
6 front end.

1 41. (previously presented) The network device of claim 33, wherein the first auxiliary coding
2 comprises five or fewer symbols.

1 42. (previously presented) The network device of claim 33, wherein the first auxiliary coding
2 comprises five or fewer bits.

1 43. (previously presented) The network device of claim 33, wherein the first identifier is a station
2 identifier for the first transmitter.

1 44. (previously presented) The network device of claim 33, wherein:
2 the first data packet header includes a source address for the first transmitter; and
3 the first identifier is not the same as the source address for the first transmitter.

1 45. (previously presented) The network device of claim 33, wherein the first set of one or more
2 parameters comprises at least one of a receiving-equalizer start value, a timing-recovery start
3 value, an automatic-gain-controller start value, and an echo-canceller start value.

1 46. (currently amended) The network device of claim 33, wherein the ~~updating~~ the first set of
2 one or more parameters is based on moving averages, from past data packets received from the
3 first transmitter, of one or more of a receiving-equalizer value, a timing-recovery value, an
4 automatic-gain-controller value, and an echo-canceller value.

1 47. (previously presented) The network device of claim 33, wherein:
2 the first auxiliary coding is received as a first set of pulses received substantially
3 immediately before the first data packet; and
4 the first identifier is encoded in the first set of pulses by variable timing intervals between
5 adjacent pulses in the first set of pulses.

1 48. (currently amended) The network device of claim 33, wherein the database table is further
2 adapted to store ~~the first~~ each different identifier corresponding to each set of one or more
3 parameters.

1 49. (currently amended) A method for a network device for a communication network, wherein
2 the network device comprises a database table and a receiver, the method comprising:

3 (1) storing a first set of one or more parameters in the database table, the first set
4 corresponding a first identifier;

5 (2) receiving a first data packet comprising a header and a payload from a first
6 transmitter;

7 (3) receiving a first auxiliary coding corresponding to the first data packet, wherein:
8 the first auxiliary coding identifies the first identifier;

9 (4) recovering the first identifier from the first auxiliary coding;

10 (5) retrieving the first set of one or more parameters from the database table based on the
11 first identifier; and

12 (6) processing at least a portion of the first data packet based on the first set of one or
13 more parameters[[:]]

14 ~~(7) updating the first set of one or more parameters based on the processing; and~~

15 ~~(8) providing to the database table, for storage, the updated first set of one or more~~
16 ~~parameters.~~

1 50. (previously presented) The method of claim 49, wherein the communication network is a
2 HomePNA network.

1 51. (previously presented) The method of claim 49, wherein:

2 the first data packet further comprises a training preamble;

3 the first auxiliary coding is inserted within the training preamble of the first data packet.

1 52. (previously presented) The method of claim 49, wherein:

2 the first data packet further comprises a training preamble;

3 the first auxiliary coding is encoded using frequency shift keying (FSK) modulation by
4 frequency division;
5 the first auxiliary coding is encoded at a frequency different from a frequency for the first
6 data packet;
7 receipt of the first auxiliary coding overlaps in time with receipt of the training preamble
8 of the first data packet.

1 53. (previously presented) The method of claim 49, wherein the first auxiliary coding is received
2 before the first data packet is received.

1 54. (currently amended) The method of claim 49, where the network device further comprises a
2 second transmitter, the method further comprising:

3 (1) generating a second auxiliary coding for transmittal with a second data packet,
4 wherein:

5 the second auxiliary coding identifies a second identifier;

6 the second identifier identifies the second transmitter; and

7 the second auxiliary coding is different from the second data packet;

8 (2) transmitting the second auxiliary coding and the second data packet to a second
9 network device.

1 55. (currently amended) The method of claim 54, wherein:

2 the second transmitter comprises a first RF front end; and

3 the method comprises transmitting both the second auxiliary coding and the second data
4 packet using the first RF front end.

1 56. (currently amended) The method of claim 54, wherein:

2 the second transmitter comprises a first RF front end and a second RF front end; and

3 the method comprises:

4 transmitting the second auxiliary coding using the first RF front end; and

5 transmitting the second data packet using the second RF front end.

1 57. (previously presented) The method of claim 49, wherein the first auxiliary coding comprises
2 five or fewer symbols.

1 58. (previously presented) The method of claim 49, wherein the first auxiliary coding comprises
2 five or fewer bits.

1 59. (previously presented) The method of claim 49, wherein the first identifier is a station
2 identifier for the first transmitter.

1 60. (previously presented) The method of claim 49, wherein:
2 the first data packet header includes a source address for the first transmitter; and
3 the first identifier is not the same as the source address for the first transmitter.

1 61. (previously presented) The method of claim 49, wherein the first set of one or more
2 parameters comprises at least one of a receiving-equalizer start value, a timing-recovery start
3 value, an automatic-gain-controller start value, and an echo-canceller start value.

1 62. (currently amended) The method of claim 49, wherein the ~~updating~~ the first set of one or
2 more parameters is based on moving averages, from past data packets received from the first
3 transmitter, of one or more of a receiving-equalizer value, a timing-recovery value, an automatic-
4 gain-controller value, and an echo-canceller value.

1 63. (previously presented) The method of claim 49, wherein:
2 the first auxiliary coding is received as a first set of pulses received substantially
3 immediately before the first data packet; and
4 the first identifier is encoded in the first set of pulses by variable timing intervals between
5 adjacent pulses in the first set of pulses.

1 64. (previously presented) The method of claim 49, further comprising storing the first identifier
2 in the database table.

1 65. (new) The network device of claim 33, wherein the first set of one or more parameters is
2 based on previously performed training results from a previous packet received from the first
3 transmitter.

1 66. (new) The method of claim 49, wherein the first set of one or more parameters is based on
2 previously performed training results from a previous packet received from the first transmitter.